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PHOTOGRAPHIC
INTERPRETATION
REPORT

NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER

RECENT DEVELOPMENT AND DEPLOYMENTS AT CHINESE ELECTRONICS FACILITIES

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JULY 1971

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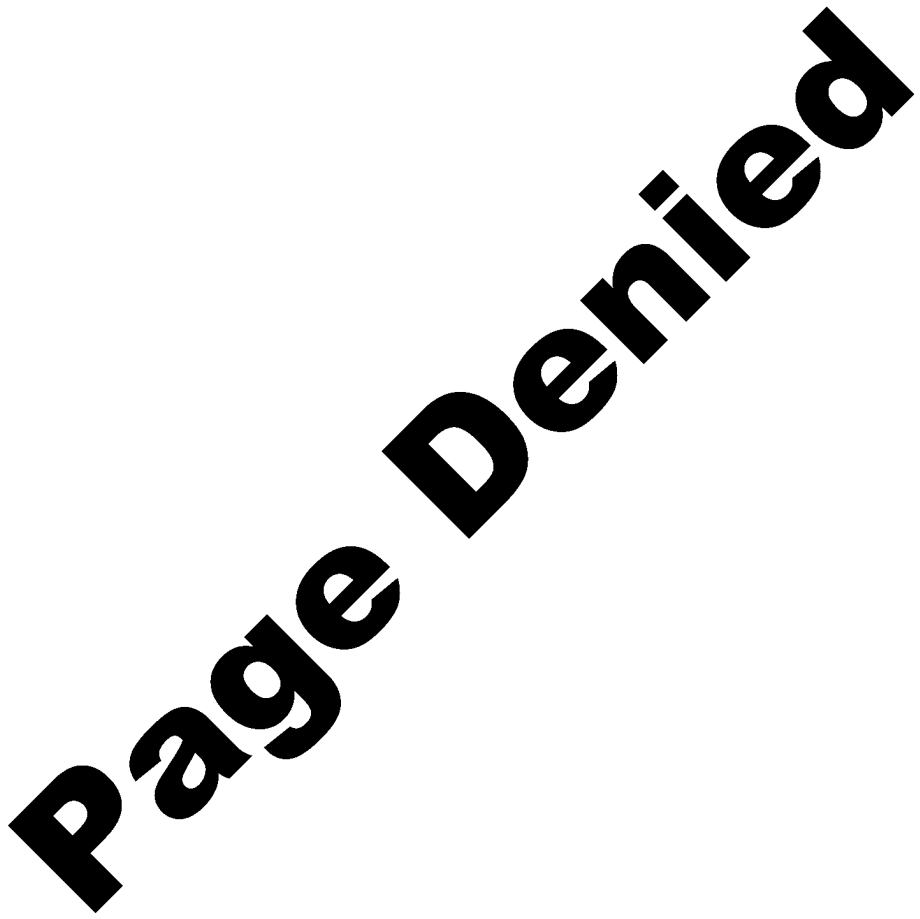

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RECENT DEVELOPMENTS AND DEPLOYMENTS AT CHINESE ELECTRONICS FACILITIES

ABSTRACT

1. Chinese advances in electronics are becoming increasingly evident throughout eastern and central China. This report summarizes some of the recent significant electronics developments and deployments including newly identified radars, FLAT FACE radars, deployment of ODD LOT radars, a newly identified radar plant in Hsi-an, and a SPOON REST radar associated with a surface-to-air missile (SAM) site.

2. This report contains nine photos, an artist's concept of a Chinese air warning radar facility, a location map, text, and reference data.

INTRODUCTION

3. The 14 electronics facilities discussed in this report are located throughout the eastern and central part of China, from approximately 100 nautical miles (nm) south of the China-Mongolia border to approximately 15 nm north of the China-North Vietnam border (Figure 1).

4. This report highlights some of the significant advances in electronics that have recently been observed in China. Within the last two years the Chinese have significantly upgraded and developed electronics equipment for air defense, missile, and ground forces purposes.

5. Two new large radars, one a height finder and the other a range and azimuth yagi-type, have recently been identified. The first confirmed photographic evidence of FLAT FACE radars at Wu-chang Radar Assembly Plant [redacted] suggests that an improved ground-controlled intercept (GCI) program may be underway. A SPOON REST radar has been identified for the first time at a SAM site on 31 October 1970; the addition of this radar has provided the Chinese with an increased acquisition range. The largest number of BAR LOCK radars observed on photography was identified at Cheng-tu Radar Plant 784 [redacted] Hsi-an Radar Plant 786 [redacted] producing fire control radars, was newly identified [redacted]

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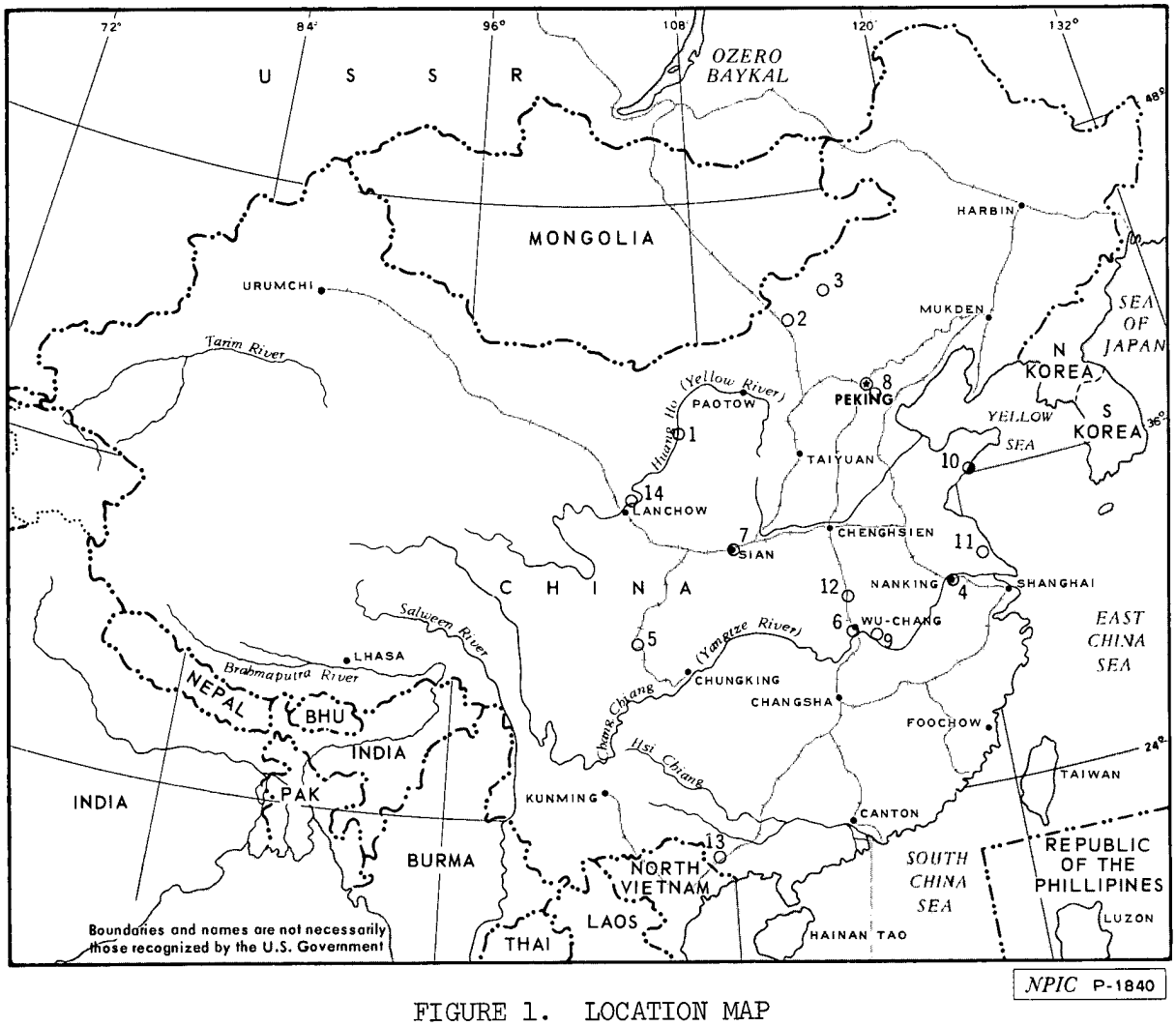

FIGURE 1. LOCATION MAP

ITEM	NAME	ITEM	NAME
1	Yin-chuan Electronics Facility	9	Chih-fang Ordnance and Radar Repair Plant
2	Suuji Possible Air Warning Radar Facility	10	Ching-tao Headquarters and Barracks AL 1
3	A-pa-ha-na-erh-chi Air Warning Radar Facility	11	Yen-cheng Airfield Air Warning Radar Facility
4	Nan-ching Radar Plant 720	12	Ming-chiang Air Warning Radar Facility
5	Cheng-tu Radar Plant 784	13	Ning-ming Air Warning Radar Facility
6	Wu-chang Radar Assembly Plant	14	Lan-chou SAM Site E04-2
7	Hsi-an Radar Plant 786		
8	Peking Air Warning Radar Facility Nan-yuan		

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INSTALLATION OR ACTIVITY NAME	COUNTRY
Yin-chuan Electronics Facility	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
NA	38-27-57N 106-07-21E

MAP REFERENCE

25X1

ACIC. USATC, Series 200, Sheet 0383-13, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

25X1

Item 1

7. Two new large radars were observed within a six-month period at Yin-chuan Electronics Facility. A height finder, 25X1
first seen in August 1970, was again present 25X1
along with a new range and azimuth yagi-type 25X1
radar (Figure 2). A Chinese variant SPOON REST and an unidentified van-mounted radar were also observed on photography 25X1
25X1

REFERENCES

25X1

25X1

25X1

INSTALLATION OR ACTIVITY NAME	COUNTRY
Suuji Possible Air Warning Radar Facility	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
NA	42-40-58N 113-24-49E

25X1

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0288-10, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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Item 2

8. An area containing one possible radar was observed 6 nm west of Suuji two areas 1 nm apart contained a total of ten radars. two radars had been removed (Figures 3 and 4).

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25X1

9. Four new types of radars have been observed at Suuji Possible Air Warning Radar Facility. The height finder was initially seen at Yin-chuan Electronics Facility. The type-A yagi with 12 element supports was also seen for the first time at Yin-chuan Electronics Facility (item 1 and Figure 2). The type-B yagi, with eight element supports cut parabolic antenna have been observed only at Suuji.

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25X1

REFERENCES

25X1

25X1

INSTALLATION OR ACTIVITY NAME	COUNTRY
A-pa-ha-na-erh-chi Air Warning Radar Facility	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
NA	43-47-14N 115-39-59E

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0289-1, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

Item 3

10. The correlation of an ELINT signal with photography revealed this radar site approximately 100 nm south of the China-Mongolia border in northeast China.

11. The site consisted of at least four radars (Figure 5), of which two were previously seen at Suuji Possible Air Warning Radar Facility (Figures 3 and 4) and Yin-chuan Electronics Facility (Figure 2). The site consisted of two height finders and two range and azimuth yagi-type radars.

12. An artist's concept (Figure 6) shows the deployment of a Chinese air warning radar facility which is similar to the A-pa-ha-na-erh-chi facility. The radars drawn do not depict every element of an actual antenna configuration.

REFERENCE

25X1

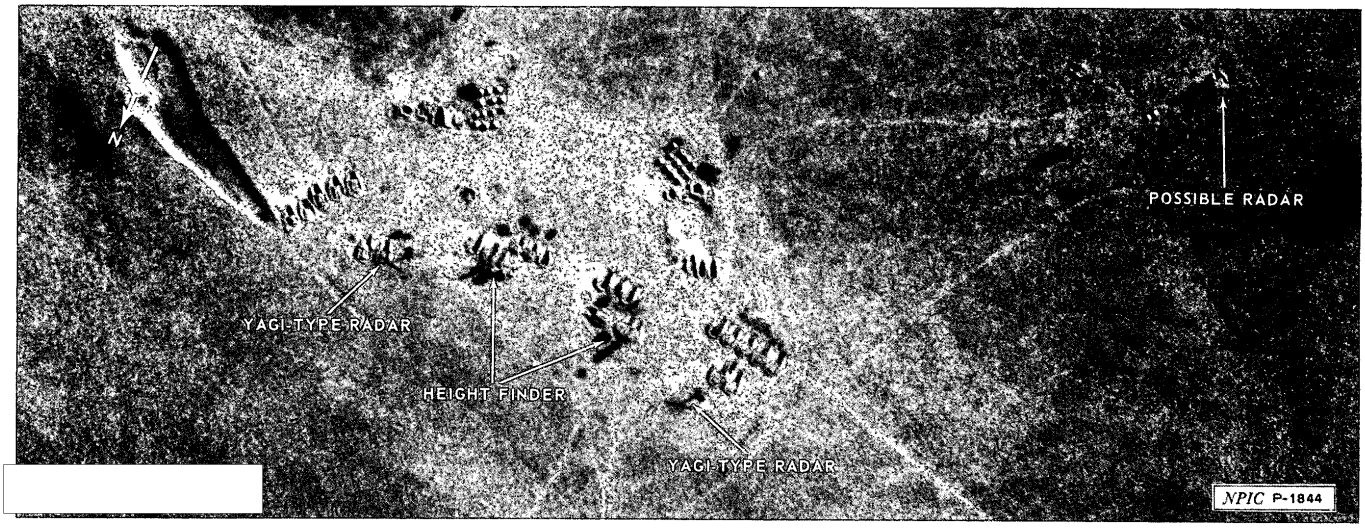

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FIGURE 5. A-PA-HA-NA-ERH-CHI AIR WARNING RADAR FACILITY, CHINA

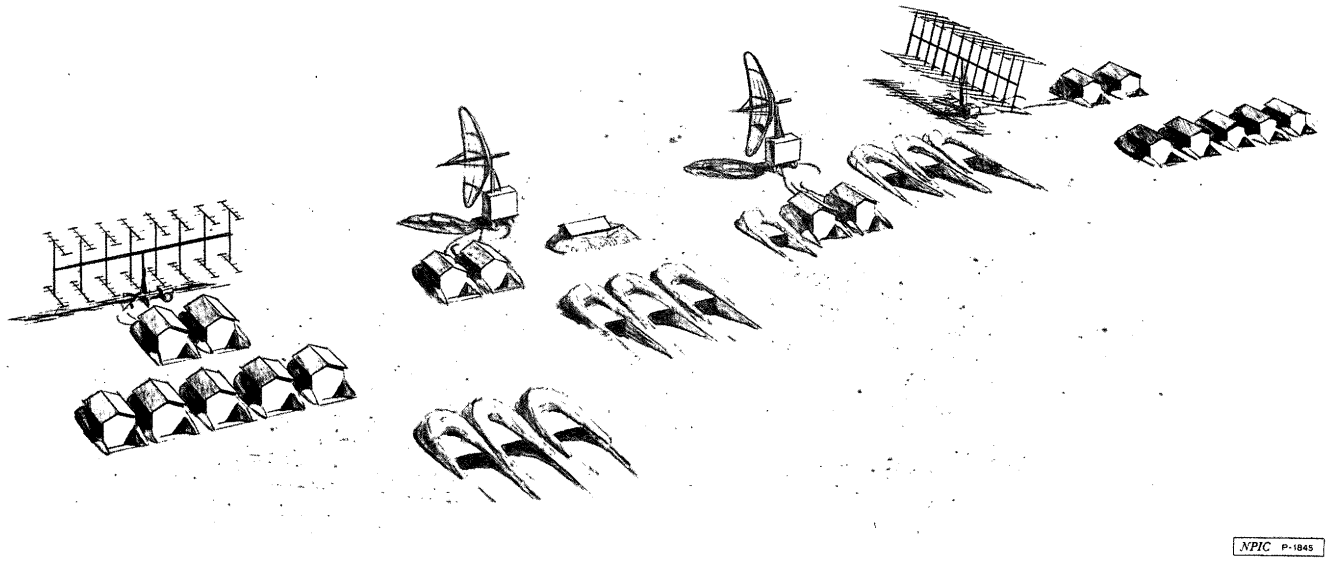

FIGURE 6. ARTIST'S CONCEPT OF A CHINESE AIR WARNING RADAR FACILITY

25X1

INSTALLATION OR ACTIVITY NAME	COUNTRY
Nan-ching Radar Plant 720	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
NA	32-05-18N 118-46-18E

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0386-22, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

Item 4

13. A radar similar to the type-B yagi radar seen on photography at Suuji Possible Air Warning Radar Facility (Figures 3 and 4) was observed at Nan-ching Radar Plant 720 on photography of Although mensuration of the radar at Nan-ching was hampered by photography of poor interpretability,) boom with eight element supports was evident. Mensuration of the type-B yagi radar at Suuji revealed a boom with eight element supports

14. A CROSS LEGS radar and a new van-mounted radar were also observed at the plant (Figure 7). The van-mounted radar is similar to a van-mounted type also seen at Yin-chuan Electronics Facility on photography

REFERENCE

25X1

INSTALLATION OR ACTIVITY NAME	COUNTRY
Cheng-tu Radar Plant 784	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
NA	30-40-38N 104-07-05E

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0495-7, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

Item 5

15. An unidentified radar was observed in the southern portion of Cheng-tu Radar Plant 784 [redacted] Identification of this radar was not possible because of poor interpretability; however, the size and shape of the antenna which has an [redacted] are similar to the [redacted] height finder initially seen at Yin-chuan Electronics Facility on [redacted] later at A-pa-ha-na-erh-chi Air Warning Radar Facility [redacted] (Figure 5), and at Suuji Possible Air Warning Radar Facility [redacted] (Figures 3 and 4).

16. Seven BAR LOCK radars, the largest number observed on photography, were also present at the plant (Figure 8).

REFERENCE

[redacted]

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INSTALLATION OR ACTIVITY NAME	COUNTRY
Wu-chang Radar Assembly Plant	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
NA	30-34-30N 114-21-10E

25X1

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0493-6, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

25X1

Item 6

17. [redacted] the presence of FLAT FACE radars at Wu-chang Radar Assembly Plant. Several FLAT FACE emissions have been intercepted from China, but the sighting of seven radars at the Wu-chang plant is the first firm photographic identification of FLAT FACE radars in China (Figure 9).

25X1

18. The FLAT FACE radar is a highly mobile, twin-reflector radar used primarily for early warning and GCI purposes. If used for the latter, it will provide the Chinese with a much improved GCI capability.

REFERENCE

[redacted]

25X1

25X1

25X1

INSTALLATION OR ACTIVITY NAME		COUNTRY
Hsi-an Radar Plant 786		CH
UTM COORDINATES: NA	GEOGRAPHIC COORDINATES: 34-16-13N 109-00-12E	

25X1

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0385-11, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

25X1

Item 7

19. The first evidence of probable radar production at Hsi-an Complex was discovered on photography 225X1 (Figure 10). Fifteen probable and eight possible FIRE CAN radars were identified at Hsi-an Radar Plant 786.*

REFERENCE

25X1

25X1

25X1

INSTALLATION OR ACTIVITY NAME	COUNTRY
Peking Air Warning Radar Facility Nan-yuan	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES	
NA	39-46-50N 116-22-50E	

25X1

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0381-1, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

25X1

Item 8

20. The ODD LOT radar was first observed at Peking Guided Missile Plant Nan-yuan [redacted] revealed an air warning radar facility adjacent to the plant. The facility consisted of one ODD LOT radar, one possible ODD LOT radar (without sail), a TOKEN radar, and a CROSS LEGS radar (Figure 11).

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25X1

REFERENCES

[redacted]

25X1

25X1

21. The deployment of the dual-purpose ODD LOT radar is becoming increasingly apparent. Items 9 through 13 are facilities where ODD LOT radars have recently been identified.

Item 9 Chih-fang Ordnance and Radar Repair Plant
30-21-03N 114-17-12E

Item 10 Ching-tao Headquarters and Barracks AL 1
36-09-32N 120-22-34E

Item 11 Yen-cheng Airfield Air Warning Facility
33-25-35N 120-13-15E

Item 12 Ming-chiang Air Warning Radar Facility
32-29-40N 114-04-20E

Item 13 Ning-ming Air Warning Radar Facility
22-10-35N 107-08-30E

INSTALLATION OR ACTIVITY NAME	COUNTRY
Lan-chou SAM Site E04-2	CH

UTM COORDINATES	GEOGRAPHIC COORDINATES
NA	36-38-48N 104-13-14E

MAP REFERENCE

ACIC. USATC, Series 200, Sheet 0383-22, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

Item 14

22. A SPOON REST radar was identified for the first time at a Chinese SAM site on photography The addition of this radar to the SA-2 system will provide the Chinese with an increased acquisition range.

REFERENCE

*NPIC. , SPOON REST Radar, Lan-chou SAM Site E04-2, China, Dec 70 (TOP SECRET RUFF)

NPIC/IEG/EGD/SECB Project 143301NT